

REMARKS

Entry of the foregoing amendments is respectfully requested.

Summary of Amendments

Upon entry of the present amendments, claims 1-69 are cancelled and claims 70-138 are added, whereby claims 70-138 will be pending. Claims 70, 84, 101, 119, 132 and 135 are independent claims.

Claims 70-138 are based generally on claims 28-69 and find support throughout the present specification and in the cancelled claims.

Applicants emphasize that the cancellation of claims 1-69 is without prejudice or disclaimer, and Applicants expressly reserve the right to prosecute these claims in one or more divisional and/or continuation applications.

Summary of Office Action

As an initial matter, Applicants note with appreciation that a signed and initialed copy of the Form PTO-1449 submitted in the Supplemental Information Disclosure Statement filed December 22, 2005 has been returned together with the present Office Action. Applicants note that the Examiner has declined to acknowledge consideration of the document: Journal of the Electrochemical Society, vol. 149. No. 5, pp. A603-A606 (2002), because pages A604 and A605 thereof were clipped. A completely legible copy of this document will be resubmitted in due course.

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The abstract is again objected to for the presence of the concluding sentence. Applicants note with appreciation that all remaining objections and all of the claim rejections set forth in the previous Office Action have been withdrawn.

The specification is objected to because the information referencing the co-pending patent application on page 14 requires updating.

Claim 18 is objected to because of an apparent typographical error.

Claims 2, 52, 61 and 62 are objected to under 37 C.F.R. 1.75(c) as being of improper dependent form for allegedly failing to further limit the subject matter of a previous claim.

Claims 18, 19, 24, 26 and 48-62 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Claims 1-38 and 69 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as allegedly being obvious over Finkelshtain et al., US 2002/0083640 A1 (hereafter "FINKELSHTAIN").

Claims 39-68 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over FINKELSHTAIN.

Claims 1-69 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over FINKELSHTAIN in view of Smotkin et al., U.S. Patent No. 5,846,669 (hereafter "SMOTKIN").

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Claims 1-38 and 69 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as allegedly being obvious over Jung et al., U.S. Patent No. 3,511,710 (hereafter "JUNG").

Claims 1-38 and 69 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over JUNG in view of SMOTKIN.

Claims 1-8, 10-15, 17-19 and 24-27 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as allegedly being obvious over Dipling, DE 3238963 (hereafter "DIPLING").

Claims 1-6, 10-16, 24 and 25 are rejected under 35 U.S.C. § 102(a) and (e) as allegedly being anticipated by Lumsden et al., US 2003/0108832 A1 (hereafter "LUMSDEN").

Claims 1-6, 10-16, 24 and 25 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Tsang, U.S. Patent No. 6,818,334 (hereafter "TSANG I").

Claims 1-6, 10-16, 24 and 25 are rejected under 35 U.S.C. § 102(a) as allegedly being anticipated by Tsang, EP 1369947 A2 (hereafter "TSANG II").

Claims 1-8, 10-15, 17-19, 24 and 25 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Suda, US 2002/0015869 A1 (hereafter "SUDA").

Claims 9, 16, 20-23, 26-38 and 69 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over SUDA.

Claims 1-38 and 69 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over SUDA in view of SMOTKIN.

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Claims 1-6, 10-16, 24 and 25 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Kojima et al., JP 2002-201001A (hereafter "KOJIMA").

Claims 1-28 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Sanglet, U.S. Patent No. 4,788,041 (hereafter "SANGLET").

Response to Office Action

Reconsideration and withdrawal of the objections and rejections of record are respectfully requested in view of the following remarks.

Response to Objection to Specification

The specification is objected to because the information referencing the co-pending patent application on page 14 requires updating.

In response, Applicants are submitting herewith a correspondingly amended paragraph [0063] of the specification, rendering the present objection moot.

Response to Objection to Abstract

The present Office Action maintains the objection to the abstract because of the statement at the end of the abstract pointing out that the abstract is not intended to define the invention disclosed in the specification nor intended to limit the claims which should be deleted in the Examiner's opinion.

Applicants are submitting herewith a new abstract which does not contain the objected to statement. Accordingly, the present objection is moot. Applicants point out

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that the deletion of the objected to statement does not mean that Applicants agree with the Examiner in this regard, but merely is to expedite the issuance of a patent on the present application.

Response to Objection to Claims

Claim 18 is objected to because of an apparent typographical error. Claims 2, 52, 61 and 62 are objected to under 37 C.F.R. 1.75(c) as being of improper dependent form for allegedly failing to further limit the subject matter of a previous claim.

Applicants respectfully submit that the objections to claims 2, 18 and 62 are moot because these claims are cancelled and do not have a direct counterpart in the claims submitted herewith.

Claim 52 has been rewritten as new claim 104 in view of rejection of this claim under 35 U.S.C. § 112, second paragraph. Claim 104 clearly limits independent claim 101 in a similar manner as claims 105 and 106 (corresponding generally to cancelled claims 53 and 54).

Claim 118 corresponds generally to cancelled claim 61. The corresponding rejection is respectfully traversed. Specifically, it is apparent that not each and every container of independent claim 101 qualifies as, and is suitable as a (re)filling device for a direct liquid fuel cell. Accordingly, withdrawal of this objection is respectfully requested.

Response to Rejection of Claims under 35 U.S.C. § 112, Second Paragraph

Claims 18, 19, 24, 26 and 48-62 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Applicants respectfully submit that the rejections of claims 18, 19, 24 and 26 are moot because these claims are cancelled and do not have a direct counterpart in the claims submitted herewith. Applicants point out that the cancellation of claims 18, 19, 24 and 26 is not to be construed as admission that the rejections of these claims are of any merit but merely is to expedite the issuance of a patent with the claims submitted herewith.

Claim 48 is rejected because it depends from a process claim (claim 39) which lacks any mixing step which is allegedly necessary for the product of claim 48. Claim 48 is rejected also because the term “obtainable” allegedly is indefinite.

Applicants submit that present claim 100 (which corresponds generally to cancelled claim 48) depends from process claim 84. Claim 84 is a rewritten form of claim 39 and makes it even clearer that this claim is directed to the production of a packaged combination of physically separated components, i.e., concentrate and polar solvent, which upon combination afford the recited fuel. The process steps recited in claim 84 clearly result in a distinct product, which product is claimed in claim 100 *per se*, i.e., whether or not it has actually been produced by the process of claim 84. This is reflected by the use of the term “obtainable”.

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Applicants submit that for at least the foregoing reasons, claim 100 is not indefinite in any respect, wherefore withdrawal of the corresponding rejection is warranted and respectfully requested.

Independent claim 49 is rejected as indefinite because it recites “a container filled with a metal hydride containing liquid” but the rest of the claim defines two other liquids, the concentrate and the solvent.

Although Applicants are of the opinion that claim 49 does not leave any doubt as to the meaning of this claim, claim 49 has been rewritten as claim 101. In view thereof, the corresponding rejection (and the rejection of the corresponding dependent claims) should be withdrawn, which action is respectfully requested.

Dependent claims 50 and 51 are rejected as indefinite because there allegedly is insufficient antecedent basis for the terms “the at least one second component” and “the polar solvent”.

Applicants submit that present claims 102 and 103 (corresponding generally to cancelled claims 50 and 51) do have sufficient antecedent basis for all of the terms recited therein, wherefore this rejection is moot.

Dependent claim 52 is rejected as indefinite because this claim recites “an internal partition which defines” and the Examiner does not understand how an internal partition could define both the first compartment and the second compartment other to the extent of its partition quality.

Applicants do not understand this rejection. Nevertheless, claim 52 has been rewritten as new claim 104 to render this rejection moot.

***Response to Rejection of Claims under 35 U.S.C. §§ 102(b)/103(a) over
FINKELSHTAIN***

Claims 1-38 and 69 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as allegedly being obvious over FINKELSHTAIN. The rejection essentially asserts that FINKELSHTAIN discloses fuel mixtures for fuel cells comprising a hydride such as NaBH_4 and an electrolyte such as KOH and that this document states in paragraphs [0017] to [0020] thereof that the hydride solutions are unstable in acid or neutral conditions but stable in basic media wherefore one of ordinary skill in the art allegedly would have immediately envisaged to create a basic solution to obtain the stability noted, thereby allegedly arriving at claims 1-27. With respect to claims 28-38 and 69, the rejection points to paragraph [0040] of FINKELSHTAIN where it is stated that 6 M KOH has been shown to be ideal for fuel cell operation at ambient temperatures and that when considering the exact composition of the fuel composition factors such as stability and solubility are taken into account. In view of these statements, the Examiner takes the position that "it would be immediately envisaged that the disclosed stability objective is a function of basicity and mere dilution to 6M would obtain the noted preference, as required by claims 28-38 and 69".

The rejection also states that "in the event the reference is deemed to be of not sufficient specificity to sustain a conclusion of anticipation, then it is concluded that it would have been obvious to one of ordinary skill in the art ... to have varied the degree of basicity as suggested to obtain the desired level of stability ... it would be apparent that longer storage is desirable and obtainable by the expedient suggested.

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Accordingly, having obtained the obvious concentrate for storage property, it would have been obvious to one of ordinary skill in the art ... to dilute for use, as it is suggested to employ 6M concentration ... “.

This rejection is respectfully traversed. As a preliminary matter, claims 1-27 are cancelled and do not have a direct counterpart in the claims submitted herewith, wherefore the rejection is moot with respect to claims 1-27. Applicants point out that the cancellation of claims 1-27 is not to be construed as Applicants' admission that the rejection of claims 1-27 over FINKELSHTAIN or any of the other documents cited in the present Office Action is of any merit. On the contrary, Applicants believe that claims 1-27 are patentable over the cited documents, wherefore they expressly reserve the right to prosecute these claims in one or more continuation and/or divisional applications.

Regarding the rejection of claims 28-38 and 69 (which are resubmitted herewith in modified form) over FINKELSHTAIN, Applicants respectfully submit that this rejection is based on hindsight. Without hindsight, the statement in paragraph [0020] of FINKELSHTAIN that BH_4^- is stable (against spontaneous decomposition) in basic solutions merely reflects a well known fact. It does not teach or suggest that there is a relationship between stability and degree of basicity (alkalinity) of the solution. This is further supported by the statement in paragraph [0023] of FINKELSHTAIN which merely calls for a pH of “above 7”.

In other words, without applying hindsight one of ordinary skill in the art would not conclude from the disclosure of FINKELSHTAIN that there is any benefit in increasing

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the pH of the fuel beyond >7 in order to increase the stability of the borohydride component of the fuel.

Paragraph [0040] of FINKELSHTAIN also does not contain any suggestion whatsoever that there is a relationship between stability and degree of basicity (alkalinity) of the fuel. What is stated in paragraph [0040] is that it has been shown in the art that 6 M KOH is ideal for fuel cell operation at ambient temperature. Clearly, this statement does not relate to the stability of any of the components of the fuel composition at all, let alone to the stability of the borohydride component. Further, one of the problems addressed by the present invention is the very fact that a hydroxide ion concentration of 6 M, while desirable for a fuel for use in a fuel cell, does not provide the borohydride stability that is desirable (and sometimes even required) for storage of the fuel over extended periods of time (see, e.g., paragraph [0009] of the present specification). Without this problem, there would be no need for the present invention. At any rate, FINKELSHTAIN does not even mention storage of the fuel disclosed therein over extended periods of time, let alone any stability problems which may be associated therewith.

The present rejection further points to the last sentence of paragraph [0040] of FINKELSHTAIN where it is stated that "when considering the exact composition of the fuel composition of the invention when supplied as an anolyte, factors such as stability and solubility are taken into account". This very general statement certainly does not provide any motivation to increase the hydroxide ion concentration of the fuel beyond that considered ideal for fuel cell operation at ambient temperature (i.e., 6 M), let alone

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in order to increase the stability of the borohydride, the more so since FINKELSHTAIN merely refers to “basic solutions” when addressing the stability of the borohydride (see paragraph [0020]).

To sum up, FINKELSHTAIN does not teach or suggest diluting a fuel concentrate with solvent in order to prepare a fuel, as recited in present independent claims 70 and 132. FINKELSHTAIN also does not teach or suggest raising the hydroxide ion concentration of a borohydride fuel beyond the concentration which is considered ideal for an operation of the fuel cell at ambient temperatures (6 M), let alone in order to increase the stability of the borohydride.

Without these suggestions that FINKELSHTAIN fails to provide, there is no motivation (and expectation of success) for one of ordinary skill in the art to make an extra effort to first prepare a fuel concentrate and to thereafter dilute the concentrate with solvent. It is apparent that preparing a concentrate is more time-consuming (longer dissolution times) and also less convenient in several other respects (higher viscosity, evolution of more heat, etc.) than preparing the ready-for-use fuel directly from the components in the desired proportions. For at least all of the foregoing reasons, FINKELSHTAIN neither anticipates nor renders obvious the subject matter of any of the claims submitted herewith, wherefore the present rejection is without merit and should be withdrawn, which action is respectfully requested.

Response to Rejection of Claims under 35 U.S.C. § 103(a) over FINKELSHTAIN

Claims 39-68 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over FINKELSHTAIN. In this regard, the rejection asserts that it would have been obvious to one of ordinary skill in the art "to 'package' or 'container' the obvious or anticipated storage stable concentrate with the necessary solvent for obtaining the acknowledged optimal 6M fuel mixture because: (1) such avoids problems of dosing the proper amounts of the two components by the end user; (2) such avoids problems of dosing with impure solvent." Paragraph bridging pages 14 and 15 of present Office Action.

This rejection is respectfully traversed as well. As set forth above in detail, FINKELSHTAIN does not provide any motivation and expectation of success with respect to the preparation of a fuel concentrate and the dilution thereof with a solvent. Without this motivation and expectation of success, there is no motivation to provide a container or a packaged combination of containers comprising both a fuel concentrate and a solvent for dilution of the concentrate to afford a hydroxide ion concentration of the diluted concentrate of not more than about 7 M, as recited in the rejected claims.

For at least all of the foregoing reasons, the rejection of claims 39-68 under 35 U.S.C. § 103(a) over FINKELSHTAIN is unwarranted, wherefore withdrawal thereof is respectfully requested.

Response to Rejection of Claims under 35 U.S.C. § 103(a) over FINKELSHTAIN in View of SMOTKIN

Claims 1-69 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over FINKELSHTAIN in view of SMOTKIN. In this regard, the Office Action alleges that SMOTKIN notes that the optimum concentration of hydroxide at ambient temperature is 6N (or 6M), but that at higher operating temperatures higher concentrations are indicated. In view thereof, the Examiner takes the position that it would have been obvious to one of ordinary skill in the art to have employed concentrations of 7M, 8M etc. and to have diluted existing fuel mixtures if an alternative lower operating temperature was desired.

Applicants respectfully traverse this rejection. In particular, it is pointed out that the passage of SMOTKIN relied on in the rejection, i.e., col. 1, lines 46-57 clearly does not refer to a fuel, let alone a metal hydride containing fuel, but to the electrolyte of a fuel cell, i.e., a different component of a fuel cell. Moreover, this electrolyte is stated to have been used in combination in alkaline fuel cells using pure H₂ and O₂ in the Apollo missions (col. 1, lines 57-60).

SMOTKIN is almost exclusively concerned with the new (hybride) electrolyte system (see title) described therein (see, e.g. abstract and col. 2, lines 57-65 of SMOTKIN) and mentions fuels to be used in combination with this new electrolyte system only in passing. In fact, it appears that SMOTKIN does not even mention metal (boro)hydride containing fuels. The fuel used in the Example of SMOTKIN is hydrogen gas. Also, according to col. 4, lines 11-18 of SMOTKIN, as a result of the new

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electrolyte system described therein (basic electrolyte and acidic electrolyte separated by a proton permeable dense phase), it is possible to use organic fuels or impure hydrogen. This clearly has nothing to do with a metal hydride containing (inorganic) fuel.

For at least all of the foregoing reasons, the rejection of claims 1-69 under 35 U.S.C. § 103(a) over FINKELSHTAIN in view of SMOTKIN is clearly without merit and should be withdrawn, which action is respectfully requested.

Response to Rejection of Claims under 35 U.S.C. § 103(a) over JUNG

Claims 1-38 and 69 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as allegedly being obvious over JUNG. Specifically, the rejection alleges that Example 1 of JUNG discloses a mixture of saturated NaBH_4 in 8N NaOH and further provides suggestions on variations of hydride and hydroxide concentrations. The rejection further alleges that it would have been obvious to one of ordinary skill in the art "to have employed concentrations anywhere within the ranges suggested and to have made less concentrated ones from more concentrated ones as an obvious expedient."

This rejection is respectfully traversed as well. In particular, JUNG dates back to 1965 and is apparently one of the first documents (if not the first document) relating to the direct conversion of the chemical energy of complex hydrides into electrical energy (see, e.g., title of JUNG). Consequently, JUNG does not describe a fuel or a fuel cell that is optimized in any respect, but sets forth the broad range of conditions under which

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this (then) new technology can be employed in principle, including a complex hydride concentration of 0.05 mol/liter to 12 moles/liter (col. 3, lines 4-7) and an alkalinity ranging from the alkalinity of a normal sodium hydroxide solution to a 12 normal aqueous sodium hydroxide solution (col. 3, lines 34-37). Clearly, JUNG is not concerned with any stability issues, let alone with the stability of the borohydride component over prolonged periods of time. Accordingly, JUNG neither teaches nor suggests preparing a fuel concentrate of high alkalinity in order to increase the stability of the borohydride and diluting this concentrate before use in a fuel cell.

What JUNG teaches is that a concentrate as employed in the present invention can be used as such (i.e., without dilution) as fuel for the fuel cell (see, e.g., Example 1 relied on in the rejection), wherefore JUNG fails to teach or suggest diluting a fuel concentrate before using it in a fuel cell. If a fuel like that described in, e.g., Examples 2-4 of JUNG (with a relatively low hydroxide concentration) is to be provided, this fuel is prepared directly from its components, i.e., without preparing a concentrate first and thereafter diluting the concentrate to a desired concentration.

Also, nothing in JUNG indicates that it may be advantageous for any reason to prepare the fuels described in, e.g., Examples 2-4 thereof from a concentrate. In this regard, it is pointed out again that in the absence of any expected advantage associated with the preparation and subsequent dilution of a concentrate, the anticipated longer dissolution times, higher viscosities, evolution of more heat, etc. involved in the preparation of a concentrate as well as the need to combine premeasured quantities of

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concentrate and diluent (solvent) for making the desired fuel constitute a disincentive rather than a motivation to prepare a fuel from a fuel concentrate.

For at least all of the foregoing reasons, JUNG does not anticipate or render obvious the subject matter of any of claims 28-38 and 69 and their counterparts in the claims submitted herewith (as noted above, rejected claims 1-27 do not have a direct counterpart in the instant claims). Accordingly, the rejection of these claims over JUNG is without sound basis and should be withdrawn, which action is respectfully requested.

Response to Rejection of Claims under 35 U.S.C. § 103(a) over JUNG in View of SMOTKIN

Claims 1-38 and 69 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over JUNG in view of SMOTKIN. As in the case of the rejection of claims 1-69 under 35 U.S.C. § 103(a) over FINKELSHTAIN in view of SMOTKIN, the present rejection relies on SMOTKIN for the alleged disclosure of preferred high hydroxide concentrations at high operating temperatures of the fuel cell.

As set forth in detail above with respect to the rejection of claims 1-69 under 35 U.S.C. § 103(a) over FINKELSHTAIN in view of SMOTKIN, the disclosure of SMOTKIN relied on by the Examiner does not relate to a fuel, let alone a metal hydride containing fuel, but to an electrolyte of a fuel cell. Accordingly, SMOTKIN does not cure the deficiencies of JUNG discussed above.

In view of the foregoing, the rejection of claims 1-38 and 69 and their counterparts in the claims submitted herewith under 35 U.S.C. § 103(a) over JUNG in

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view of SMOTKIN is unfounded and should be withdrawn, which action is respectfully requested.

Response to Rejection of Claims 1-28 under 35 U.S.C. § 102/103 over One or More of DIPLING, LUMSDEN, TSANG I, TSANG II, SUDA, KOJIMA and SANGLET

Each of claims 1-28 is rejected under 35 U.S.C. § 102(a), (b) and/or (e) or, alternatively, under 35 U.S.C. § 103(a) over at least one of DIPLING, LUMSDEN, TSANG I, TSANG II, SUDA, KOJIMA and SANGLET.

Applicants submit that all of these rejections with the exception of the rejection of claim 28 are moot because the claims submitted herewith do not contain direct counterparts of claims 1-27. As pointed out above, the cancellation of claims 1-27 is not to be construed as Applicants' admission that any of these rejections are meritorious, but merely is to expedite the issuance of a patent with the claims submitted herewith.

Applicants note that together with claims 1-27, independent process claim 28 (corresponding generally to claim 70 submitted herewith) is rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by SANGLET. Since the rejection does not set forth where SANGLET allegedly discloses, e.g., the combination of a concentrate as recited in claim 28 with a solvent in an amount of at least 15 % by volume of the concentrate, it is assumed that the rejection of claim 28 as anticipated by SANGLET is unintentional and due to an oversight.

At any rate, withdrawal of the rejection of claim 28 over SANGLET is respectfully requested.

Response to Rejection of Claims under 35 U.S.C. § 103(a) over SUDA

Claims 9, 16, 20-23, 26-38 and 69 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over SUDA. The rejection refers to Example 1 of SUDA which allegedly discloses a composition comprising about 7.5 M KOH and 2 weight % KBH_4 . The rejection further relies on paragraph [0050] of SUDA which mentions concentrations of the metal-hydrogen complex compound dissolved in an aqueous alkaline solution in the range of from 0.1 to 50 % by weight and asserts that in view thereof, it would allegedly have been obvious to one of ordinary skill in the art "to vary the amounts of components and thus arrive at the subject matter encompassed by Applicant's claims" and "to have employed concentrations anywhere within the ranges suggested to have made less concentrated ones from more concentrated ones as an obvious expedient". Page 19 of Office Action.

This rejection is respectfully traversed as well. Initially, it is pointed out again that the claims submitted herewith do not comprise direct counterparts of claims 9, 16, 20-23, 26 and 27, wherefore the rejection is moot with respect to these claims. Regarding claims 27-38 and 69, it is pointed out that SUDA does not provide any motivation to first prepare a fuel concentrate and to then dilute the concentrate to prepare the desired fuel for use in a fuel cell. On the contrary, SUDA even teaches away from the subject matter of the rejected claims. Specifically, in paragraph [0049] of SUDA the following is stated:

The aqueous alkaline solution contains the above-mentioned alkaline compound in a concentration of at least 5% by weight or, preferably, at least 10% by weight. Although the concentration of the alkaline compound has no definite upper limit up to the saturation concentration, the concentration should practically not exceed 30% by weight because of the limited solubility behavior of the metal-hydrogen complex

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compound in the aqueous alkaline solution when the alkali concentration is excessively high.

Emphasis added. The above statement clearly teaches that a hydroxide concentration above 30 % by weight is to be avoided and thereby provides a disincentive rather than a motivation to prepare a concentrate with a higher hydroxide ion concentration than that of the desired mixture if this concentrate is to be diluted later, anyway. In this regard, it also is noted that the above statements appear to be in line with Example 1 of SUDA wherein a 30 % by weight KOH solution contains KBH_4 in only a relatively low concentration, i.e., 2 % by weight.

Further, SUDA does not contain any teaching or suggestion to the effect that despite the disadvantage pointed out therein, for other reasons it may overall be advantageous to use relatively high hydroxide ion concentrations. Certainly SUDA does not teach or suggest that in order to stabilize the borohydride solution over extended periods of time the hydroxide ion concentration should be high. As taught in paragraph [0049] of SUDA, a concentration of alkaline compound of as low as 5 % by weight is already acceptable.

For at least all of the foregoing reasons, SUDA fails to render obvious the subject matter of any of claims 28-38 and 69 and their counterparts in the claims submitted herewith. In view thereof, withdrawal of the rejection under 35 U.S.C. § 103(a) over SUDA is warranted and respectfully requested.

Response to Rejection of Claims under 35 U.S.C. § 103(a) over SUDA in VIEW of SMOTKIN

Claims 1-38 and 69 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over SUDA in view of SMOTKIN. As in the case of the rejection of claims 1-69 under 35 U.S.C. § 103(a) over FINKELSHTAIN in view of SMOTKIN and of claims 1-38 and 69 under 35 U.S.C. § 103(a) over JUNG in view of SMOTKIN, the present rejection relies on SMOTKIN for the alleged disclosure of preferred high hydroxide concentrations at high operating temperatures of the fuel cell.

As set forth in detail above with respect to the rejection of claims 1-69 under 35 U.S.C. § 103(a) over FINKELSHTAIN in view of SMOTKIN, the disclosure of SMOTKIN relied on by the Examiner does not relate to a fuel, let alone a metal hydride containing fuel, but to an electrolyte of a fuel cell. Accordingly, SMOTKIN does not cure the deficiencies of SUDA discussed above.

In view of the foregoing, the rejection of claims 1-38 and 69 and their counterparts in the claims submitted herewith under 35 U.S.C. § 103(a) over SUDA in view of SMOTKIN is unfounded and should be withdrawn, which action is respectfully requested.

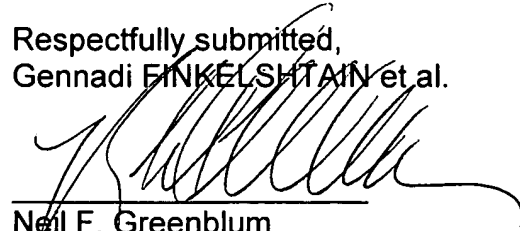
CONCLUSION

In view of the foregoing, it is believed that all of the claims in this application are in condition for allowance, which action is respectfully requested. If any issues yet remain which can be resolved by a telephone conference, the Examiner is respectfully

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invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,
Gennadi FINKELSHTEIN et al.

A handwritten signature in black ink, appearing to read 'Neil F. Greenblum', written over a horizontal line.

Neil F. Greenblum

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